

## SHORT NOTE

### Co-operative hunting by subantarctic skuas (*Catharacta skua lonnbergi*) at Macquarie Island

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The subantarctic skua (*Catharacta skua lonnbergi*) forages on a wide range of prey using a variety of feeding techniques (Higgins & Davies 1996; Moncorps *et al.* 1998; Reinhart *et al.* 2000). Co-operative hunting by the subantarctic skua has been recorded targeting larger seabirds, such as the white-chinned petrel (*Procellaria aequinoctialis*), grey petrel (*P. cinerea*) and small unattended chicks of various albatross species (Sinclair 1980). This foraging technique provides an additional strategy to access food resources that otherwise may be difficult to procure, such as the targeting of larger prey (Ryan & Moloney 1991). While on Macquarie Island (54°32'S, 158°55'E) between 25 March and 4 December 2003, I observed co-operative hunting by two subantarctic skuas when predating on eggs and when hunting rabbits (*Oryctolagus cuniculus*).

Co-operative egg predation, which was directed at the gentoo penguin (*Pygoscelis papua*) (eight times), northern giant-petrel (*Macronectes halli*) (twice), and black-browed albatross (*Diomedea melanophrys*) (once), took place at nests situated on the periphery of colonies (gentoo penguin) or as solitary nests (other two species). Each incident followed the same sequence of events: one skua walked up to an incubating bird, while the other skua stood close by. The incubating bird responded by lunging at the approaching skua. The skua then backed away and walked around the nest, pecking at nest material at the rear of the incubating bird. The latter responded by quickly shuffling around to face the skua, keeping its egg hidden from view. The skua again responded by backing away. The second skua then flew in and pecked at the opposite side of the nest bowl. The incubating bird swung around to face the new threat, again keeping the egg hidden. The first skua recommenced pecking at the nest bowl, forcing the incubating

bird to swing around again. This sequence was repeated continually with the incubating bird constantly swinging around on the nest bowl, until either it abandoned the nest (two occasions, gentoo penguin) or lost balance, partially falling off the nest and exposing the egg (nine occasions, all species combined). On three occasions (gentoo penguin twice, northern giant-petrel once) the attempt to unsettle the incubating bird was unsuccessful and the skuas moved away. Exposure of the egg resulted in one of the skuas rushing in, grabbing it, and flying off to open ground some distance from the nest. The second skua followed and they took turns consuming the egg's contents.

Direct predation of rabbits was observed five times by paired birds defending nesting territories. Each incident involved a skua crash-diving a sub-adult rabbit, pinning it to the ground. As the rabbit struggled, the second bird arrived. This individual pecked at the head of the rabbit, killing it. The birds then took turns at feeding on the carcass.

Most previous observations of co-operative feeding on rabbits (Burton 1968) followed the successful capture of a rabbit by one member of a pair and involved the two birds vigorously tugging opposing sections of a rabbit carcass in repeated attempts to tear it apart. Such behaviour was frequently observed in subantarctic skua pairs (48 occasions) on Macquarie Island when feeding on rabbits or adult penguin carcasses.

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